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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,806	10/16/2003	Bryan V. Hunt	86266AJLT	9649

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Paul A. Leipold
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

CHEA, THORL

ART UNIT PAPER NUMBER

1752

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,806

Applicant(s)

HUNT ET AL.

Examiner

Thorl Chea

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. In view of the Appeal Brief filed on December 1, 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

SPE's signature. 

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1750

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1752

The claiming of the value of b^* at the optical density of 1.0 and the value of b^* at D_{min} is indefinite in the absence of providing the value of D_{min} and the value of b^* since the D_{min} is relative to the process and material. D_{min} is not a fixed variable or known value acceptable for all the photothermographic material. There is an indefinite value of b^* in the CIELAB color system. The claiming of “an exposure wavelength” presented in claim 1 is either unclear and indefinite since the material is sensitized to “infrared region”, and it unclear whether the “exposure wavelength” is related to the infrared radiation or the light outside the scope of infrared region.

4. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claiming of “said imagewise exposure is carried out using an image obtained by computed radiographic means, digital radiographic means, or digital scanning a radiographic image in a wet-processing radiographic film” fails to further the scope of “imagewise exposing the photographic material of claim 1 to infrared radiation to form a latent image in claim 1. the scope of radiographic means include the scope of X ray radiation which is outside the scope of the infrared radiation .

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 96/15479 (WO'479).

See WO'479 pages 61, lines 25-28 to page 67, especially Dye 1 on page 63, and antihalation dye 2 on page 64; the material on page 83 to page 92, especially on 83, Example 4, lines 1-6 which discloses the use of the acutance dye in the topcoat layer and it has been determined that "the acutance dye" migrates into the coating layer during coating and drying; Dye 1 on page 84 and Dye-2 on page 85, lines 28; and unprimed blue tinted polyester support page 91 lines 20-30 on page 91. Page 34, lines 20-29 and pages 35 lines 1-9 disclose that the dyes are generally added to the photothermographic element in a sufficient amount to provide optical density of greater than 0.1 at λ_{max} of the dye. Generally, the coating weight of the dye which will provide the desired effect is from 5 mg/m² to 200 mg/m², more preferably as 10 mg/m² to 150 mg/m². For the purpose of good viewing of the image-developed film it is desired to for the dye to have visible absorbance less than ≤ 0.01 or to be bleached to a material having a visible absorbance of ≤ 0.01 . The dye may be incorporated into photothermographic elements as acutance dyes according to conventional techniques. The dye may also be incorporated into antihalation layers according techniques of the prior art as antihalation backing layer, an antihalation under layer or as an overcoat. See the adding the acutance dye in the photographic

Art Unit: 1752

emulsion layer on page 24, lines 9-10; the adding the sensitizing dyes to provide them with high sensitivity in the infrared light on page 39, lines 10-15; the sulfur compound as chemical sensitizer on page 38 and the process of using the material as photomask on page 25, lines 25-29 and page 61, lines 1-23. The material is useful in medical diagnostic and graphic uses (page 2, first paragraph).

The material exemplified in Example 4 contains infrared sensitizing Dye-1, PermanaxTM WSO as reducing agent, ButvarTM B-79 are binder and top coat layer containing acutance dye, wherein the acutance dye migrates into the photothermographic emulsion layer during coating and drying process. The amount of Dye-2 is 28 mg/m². This amount would provide to provide optical density of greater than 0.1 at λ_{max} of the dye disclose on page 34, lines 20-28. The scope of optical density of at least 1.0 at an exposure wavelength is within the scope preferred range disclosed in WO'469, and the worker of ordinary skill in the art would have used the preferred amount discloses in WO'469 from 5 mg/m² to 200 mg/m² to provide the imaging layer with similar absorbance. The material claimed in the present claimed invention has composition similar to that disclosed in the WO'469, and it would expected to inherently has similar characteristic after processing. In the absence of showing in the contrary, it is asserted either anticipated or found prima facie obvious to the worker of ordinary skill in the art at the time the invention was made. Moreover, the material taught in WO'479 is for use in the medical diagnostic, and it would have expected to have similar color tone after processing such as presented in the claimed invention.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/15479 (WO'479) as applied to claims 1 4-9, 11 above, and further in view of Manian (US Patent No.

Art Unit: 1752

5,172,419). The method of digitizing a medical film image has been known in Manian. See abstract and columns 6-10, claims 1-12. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to form an image using a digitizing means taught in Manian to produce medical film, and thereby provide a process as claimed.

Response to Arguments

9. Applicant's arguments presented in the Brief of Appeal on December 1, 2005 is not persuasive for the new ground of rejection set forth above.

The material claimed in the present claimed invention including the use of acutance dye in the image forming layer or in the topcoat layer so that the acutance dye immigrate into the image forming layer including the adjustment of the optical density at least 0.1 at λ_{\max} of the dye and the optical density at least 1.0 overlaps the preferred range taught in WO'479. Moreover, WO'479 prefer the dye within the amount of 5 mg/m² to 200 mg/m², and therefore it would have expected to provide the image layers with an absorbance within the range claimed in the present claimed invention, and therefore achieving similar tone presented in the claims. The results presented in the specification has been considered, but fails to overcome the rejection above. The applicants may argue that the color tone presented in the claim is achieved by the amount of acutance dye. However, the results shown in the specification cannot be achieved by adjusting the absorbance of the imaging layers to at least 1.0, but the a specific chemical sensitizer disclosed in Winslow (US 5,891,615) and the antifoggant A such as 2-(tribromomethylsulfonyl)pyridine. The comparative samples contain same amount of the acutance dye in the top layer are not provide the color tone presented in the claims. Accordingly, it is believed that the invention as claimed is not patentably distinct from the material taught in

Art Unit: 1752

WO'479. The samples presented in the specification disclosure does not contains an acutance dye in the imaging layers, but in the overcoat layer similar to that taught in WO'479. The limitation presented in claim 7 such as "the photothermographic material exhibits a hue angle, h_{ab} , such that $220^{\circ} < h_{ab} < 260^{\circ}$, where h_{ab} is the hue angle, $h_{ab} = \arctan(b^*/a^*)$, as measured at the optical density of 1.0, and as defined in the CIELAB color system fails to further limit the composition of the claimed photothermographic material. The hue material of the material discloses in WO'479 would show similar hue after heat processing due to the similarity of the composition thereof.


Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1700.

Tch
02-11-2006


Thorl Chea
Primary Examiner
Art Unit 1752